

REMARKS

Claims 1 through 75 are currently pending in the application.

Claims 1 through 31, 37 through 65 and 71 through 75 are withdrawn from consideration as being directed to a non-elected invention.

Claims 32 through 36 and 66 through 70 currently stand rejected.

Claims 32 and 66 have been amended.

Claims 33 and 67 have been canceled.

This amendment is in response to the final Office Action of October 8, 2003.

35 U.S.C. § 102(b) Rejections

Anticipation Rejection Based on Wark et al. (U.S. Patent 5,809,987)

Claims 32, 33, 35, 36, 66, 67, 69 and 70 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wark et al. (U.S. Patent 5,809,987).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

After carefully considering the cited prior art, the rejections, and the Examiner's comments, Applicants have amended Claims 32 and 66 in order to include the requirement that the semiconductor device which is supported on a cutting pedestal be under the influence of a vacuum prior to singulation of the device. Ample support for the amendment can be found in the Specification at paragraphs [0040], [00 41], and [0043].

In contrast to Applicant's presently claimed invention, Wark does not describe the action of a vacuum on a wafer. Wark describes a process in which a wafer or substrate which has adhesive tape applied to one surface is placed upon a chuck. The chuck has a surface which is interrupted by a grid of lines. The substrate or wafer is placed with its taped side in contact with the surface of the chuck. A vacuum is then applied, through the grid of lines, to the adhesive tape, which is pulled away from the wafer and into the grid, where it is held by the vacuum until

the substrate has been sawn, from above, along the grid lines. Col 2, lines 34 -39; FIG.S 1, 3-6. By singulating with the method of Wark, the saw blade does not come into contact the adhesive tape during singulation, and thus does not bind or become gummed with adhesive. Applicants emphasize that only the tape experiences the vacuum, and not the wafer/substrate. This fact is made all the more clear by the fact that the tape is pulled away from the wafer by the vacuum.

The method of Applicants presently claimed invention, in contrast, requires that underside of the wafer/substrate be subjected to a vacuum. There is no adhesive tape to block the action of the vacuum: The Applicants' presently claimed invention does not require an adhesive tape because the singulated devices are held in place with respect to one another, after sawing or other separation, by a vacuum applied directly to their undersides. Specification at paragraphs [0040], [0041], and [0043]. Claims 33 and 67, which contained the requirement that the vacuum act on the wafer/substrate/semiconductor device, have been canceled, and their limitations have been incorporated into independent claims 32 and 66, respectively. Dependent claims 35, 36, 69 and 70 are respectfully deemed allowable as depending from allowable independent claims.

35 U.S.C. § 103(a) Rejections

Obviousness Rejection Based on Wark et al. (U.S. Patent 5,809,987) in view of Ishiwata et al. (U.S. Patent 6,102,023)

Claims 34 and 68 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wark et al. (U.S. Patent 5,809,987) in view of Ishiwata et al. (U.S. Patent 6,102,023). Applicants respectfully traverse this rejection, as hereinafter set forth.

Applicants submit that to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited prior art reference must teach or suggest all of the claim limitations. Furthermore, the suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure.

Applicants respectfully submit that the references as proposed to be combined in the Office Action do not teach or suggest all of Applicants' present claim limitations. Neither Wark nor Ishiwata teach or suggest the specific application of a vacuum to the undersurface of a wafer/substrate or singulated device. Applicants thus respectfully submit that claims 34 and 68 are allowable for the foregoing reason. Furthermore, claims 34 and 68 are allowable as depending from allowable independent claims 32 and 66 respectively.

In summary for the reasons herein, Applicants submit that claims 32, 34 through 36, 66 and 68 through 70 are clearly allowable over the cited prior art.

Applicants request entry of this amendment for the following reasons:

The amendment is timely filed.

The amendment places the application in condition for allowance.

The amendment does not require further search or consideration because the subject matter to a dependent claim which has been the subject of a prior search and prior consideration has merely been incorporated in to an independent claim.

Applicants request the entry of this amendment, the allowance of claims 32, 34 through 36, 66 and 68 through 70, and the case passed for issue.

Respectfully submitted,



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